

## Torres, Francine

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**From:** kdmck@xtra.co.nz%inter2 [kdmck@xtra.co.nz] on behalf of kdmck@xtra.co.nz  
**Sent:** Monday, August 15, 2005 9:25 PM  
**To:** National List  
**Subject:** ANPR submissions

Below is our submission for the use of formic acid in our Liquid Fish fertiliser Docket TM-04-07

We have used formic acid in our production for 15 years, for the reasons outlined below, in relation to other stabilising acids:

Formic Acid will stabilise fish material at pH 3.8 - pH 4.0 at 2%

Mineral Acids ( sulphuric+ Hydrochloric) will stabilise fish material at pH 1.9 - pH 2.5 at 3.0 - 4.5%.

Phosphoric Acid at pH 3.8 at 8%

The material stabilised with formic acid is non aggressive ( we are able to store product for long periods in mild steel tanks)

Material stabilised with sulphuric acid is highly aggressive and requires 100% stainless steel or plastic materials for storage and handling. This is an added risk for factory operations and for the end user.

Formic acid is an organic acid occurring in nature and is naturally degraded in the environment.

We hope this will explain clearly our reasons for wishing to continue with Formic as opposed to other acids

Darrell and Kaye McKenzie (Sealand Industries New Zealand)